

CLAIMS

1. A unit-type roller drive device of a size as approximately high as the back of the human body for motor-driven roller massage actions, comprising:

5 a frame composed of a base portion and left and right edge portions standing upright from the left and right sides of the base portion;

a longitudinal guide slit provided in each of the left and right edge portions;

10 a shaft having a gear and mounted to each of the upper and lower ends of the frame;

a roller chain mounted in a ring shape round the upper and lower shafts in meshing with said gears; and

15 a shaft bushing⁵ mounted to each roller chain and fixed to massaging ball rollers, the left and right ends of said shaft bushings being mounted in an inserted state in said guide slits;

no left & right ends
wherein the roller chains are moved vertically by rotation of the shafts with a drive motor, and in cooperation with the vertical movement of the roller chains, the massaging ball
20 rollers are guided in accordance with the guide slits for vertical movement.

2. A unit-type roller drive device for motor-driven roller massage actions according to claim 1, wherein each shaft
25 bushing has a plate-shaped base portion fixed to the opposite ends of each roller chain and a rising piece standing upright from the surface of the base portion and is structured that a pivotal massaging ball roller mount piece is mounted to the

10031973.050207

rising piece, the massaging ball rollers are mounted to the massaging ball roller mount piece, pins are provided to be projecting from the back of said base portion outwardly, and the guide rollers are mounted to said pins to insert the guide roller
5 portions into the guide slits.

3. A unit-type roller drive device for motor-driven roller massage actions according to claim 2, wherein the rising piece has a triangular shape, and the massaging ball roller mount
10 piece has a shape like the letter V and is structured that the massaging ball rollers are mounted to the respective top ends of two-directional side pieces of said massaging ball roller mount piece, and a stopper is provided to be projecting from the surface
of each of said two side pieces.

8 ¹⁵ ~~4.~~ A unit-type roller drive device for motor-driven roller massage actions according to claim 1, 2 or 3, wherein sensors to vary the turning direction of the drive motor is provided on one side edge portion of the frame in the vicinity of the upper and
20 lower shafts.

5. A motor-driven roller massage instrument, comprising:
a bucket-shaped base body having a concave portion provided in the center of the base body for installation of the
25 roller drive device and left and right flexible blade piece portions formed on the left and right sides of said concave portion; and
belts mounted to the left and right blade piece portions to

10031973 050202

fasten the user body and also to fasten the other appliance;

wherein the roller drive device according to claim 1, 2, 3 or 4 is installed in said concave portion for installation of the roller drive device.

5

6. A motor-driven roller massage instrument, comprising:
an outside frame surrounding a bucket-shaped portion on all sides; and

upper and lower lateral rods mounted across the left and right frame portions of the outside frame and respectively having concave portions;

wherein the roller drive device according to claim 1, 2, 3 or 4 is installed in said concave portions.

15 7. A legless chair mounted with a motor-driven roller massage instrument, comprising:

a back portion rotatably mounted to a seat portion and having an outside frame surrounding the back portion on its upper, left and right sides;

20 upper and lower lateral rods mounted across the left and right sides of the outside frame and respectively having concave portions;

wherein the roller drive device according to claim 1, 2, 3 or 4 is installed in said concave portions.

*add
A2*

10034973 650202